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WHAT IS CLAIMED IS

1.   An interference measurement and evaluation system comprised of:

a transmitting means for transmitting a digitally modulated wave signal,

a receiving means for decoding a modulated signal from a modulated wave signal received from the transmitting means, and

an interference characteristic estimating means for estimating an interference characteristic including a nonlinear interference characteristic by which said received modulated wave signal is affected from an interference signal with respect to said received modulated wave signal due to the nonlinear characteristic of said receiving means,

said interference characteristic estimating means referring to a level of said modulated wave signal received by said receiving means, a level of said interference signal, and a nonlinear interference theoretical curve given in relation to a line quality of a modulated signal decoded by said receiving means and estimating an interference characteristic including the nonlinear characteristic possessed by said receiving means, based on the measured level of the modulated wave signal, level of said interference signal, and line quality of said decoded modulated signal.

2.   An interference measurement and evaluation system as set forth in claim 1, wherein said interference characteristic measuring means estimates the nonlinear interference characteristic possessed by said receiving means based on the modulated wave signal of a region where the nonlinear interference is dominant when said nonlinear interference theoretical curve satisfies a predetermined line quality and based on the received level of the interference signal.

3.   An interference measurement and evaluation system as set forth in claim 2, wherein said receiving

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means is provided with a receiving side interfered
digital wireless means receiving a composit signal of
said modulated wave signal from said transmitting means
and an interference signal from said nonlinear
interfering means and an error rate measuring means for
measuring an error rate in said composite signal and
wherein said predetermined line quality is a bit error
rate free from an effect from a received noise power,
free from an effect of leakage power, dominated by the
nonlinear interference region, and measured by said error
rate measuring means.

4.   An interference measurement and evaluation
system as set forth in claim 2 or 3, wherein said
transmitting means is provided with a transmitting side
variable attenuating means for changing said transmitted
signal level and said nonlinear interference
characteristic possessed by said receiving means is
estimated by changing said transmitted signal level by
said transmitting side variable attenuating means.

5.   An interference measurement and evaluation
system as set forth in claim 2 or 3, wherein said
transmitting means and said receiving means are provided
between them with a nonlinear interfering means having a
carrier frequency different from a frequency region of
said transmitting means and giving a nonlinear
interference wave signal having a non negligible level
compared with the level of said modulated carrier
transmitted from said transmitting means, said
transmitting means is provided with a transmitting side
variable attenuating means for changing said interference
signal level, and said nonlinear interfering means is
provided with an interfering side variable attenuating
means for changing the level of said interference signal,
and said transmitting side variable attenuating means and
said interfering side variable attenuating means are
adjusted to make the ratio of said transmitting signal
level and the level of said interference signal constant

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and give it to said receiving side interfered digital
wireless m ans, whereby said nonlinear characteristic
possessed by said receiving means is estimated.

6.   An interference measurement and evaluation
system as set forth in claim 5, wherein said receiving
means is provided with a receiving side variable
attenuator for changing an input signal level from said
transmitting means and changes said input signal level so
as to estimate said nonlinear interference characteristic
possessed by said receiving means.

7.   An interference measurement and evaluation
system as set forth in claim 1, wherein said interference
characteristic estimating means estimates a thermal noise
power based on the nonlinear characteristic given to said
receiving means based on the received signal level of the
region where the received thermal noise power is dominant
when said nonlinear interference theoretical curve
satisfies a predetermined line quality.

8.   An interference measurement and evaluation
system as set forth in claim 5, wherein said nonlinear
interfering means is provided with a frequency converting
means for converting a center frequency of a nonlinear
interference wave, and said interference characteristic
estimating means estimates a received equivalent band
limitation characteristic possessed by said receiving
means when converting the center frequency of the
nonlinear interference wave by said frequency converting
means.

9.   An interference measurement and evaluation
system as set forth in claim 1, wherein said interference
characteristic estimating means estimates a leakage power
of said receiving means based on a received signal level
of a region where leakage power is dominant when said
nonlinear interference theoretical curve satisfies a best
line quality.

10.   An interference measurement and evaluation
system as set forth in claim 9, wherein said interference

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characteristic measuring means is provided with a frequency converting means for converting a center frequency of an interference signal, and said interference characteristic estimating means finds a receiving side input level giving the best line quality characteristic and its line quality based on a receiving side input level receiving line quality characteristic of said modulated wave signal for an offset frequency of said interference signal when converting the center frequency of the interference signal by said frequency converting means and said nonlinear interference theoretical curve and estimating the received equivalent leakage power for the offset frequency of the receiving side as a whole using this.

11.   An interference measurement and evaluation system as set forth in claim 9, which, when measured values of a receiving side input level and the received line quality characteristic linked with said nonlinear interference theoretical curve are discrete, finds by approximation the receiving side input level giving the best line quality characteristic and that received line quality and estimates the received equivalent leakage power for the offset frequency of the receiving means by this.

12.   An interference measurement and evaluation system as set forth in claim 9, wherein said interference characteristic estimating means estimates the line quality characteristic of said receiving means for an interference signal including a nonlinear interference wave of any frequency and of any level based on said nonlinear interference theoretical curve, a thermal noise power estimated given to said receiving means based on a received signal level of a region where the received thermal noise power is dominant when said nonlinear interference theoretical curve satisfies a predetermined line quality, and said equivalent leakage power.

13.   An interference measurement and evaluation

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system as set forth in claim 1, wherein said interference characteristic estimating means estimates by approximation an interference characteristic including a nonlinear interference characteristic possessed by said receiving means based on a line quality of a decoded signal of a discrete receiving side input level versus modulated wave signal characteristic of a modulated wave signal measured over a range near said modulated wave signal from a state where there is no signal giving nonlinear interference to said receiving means to a state giving nonlinear interference.

14. An interference measurement and evaluation system as set forth in claim 1, wherein said interference characteristic estimating means estimates the nonlinear interference of said receiving means based on a received level of a region where an adjacent power dominates and of a region where a received thermal noise dominates in said nonlinear interference theoretical curve.

15. An interference measurement and evaluation system as set forth in claim 7, wherein said interference characteristic estimating means estimates the nonlinear interference characteristic of said receiving means based on said nonlinear interference theoretical curve and said estimated thermal noise power even when said modulated wave signal and said interference signal approach each other in frequency to an extent where the adjacent power increases.